

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : October 17, 2003
C. Lutz : Group Art Unit: To be Assigned
Serial No.: To be Assigned : Examiner: To be Assigned
Filed: October 17, 2003 : San Jose, California
Title: ARRANGEMENTS OF MICROSCOPIC PARTICLES FOR PERFORMING
LOGIC COMPUTATIONS, AND METHOD OF USE

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
U.S. Patent and Trademark Office
P.O. BOX 1450
Alexandria, VA 22313-1450

Dear Sir:

Under the provisions of 37 CFR § 1.97 through §1.99 and pursuant to Applicant(s)' duty of disclosure under 37 CFR §1.56, Applicant(s) respectfully bring the following document(s) listed on the attached form PTO-1449 to the attention of the Examiner in charge of the above-identified application.

This Information Disclosure Statement is being filed with a divisional application of Application Serial No. 10/256,496 filed September 26, 2002; the references on the attached PTO-1449 were either cited by the Applicant(s) or by the Examiner during prosecution of this parent application. Copies of the listed document(s) are not provided herewith.

The Examiner's attention is also brought to copies of slides (included in the IDS of the parent application) that were presented before a group at the American Vacuum Society in Boston, Massachusetts on October 2, 2000. No copies of these slides were distributed. The slides, which outline the work of inventor Lutz, were presented by his manager, Donald Eigler.


This submission does not constitute an admission that the cited reference(s) are relevant or material to the claims. The reference(s) are only cited as constituting related art of which Applicant(s) are aware.

It is respectfully requested that the listed references be considered by the Examiner and formally made of record in this application.

The Director is hereby authorized to charge payment of any deficiency in the above fee(s) or to charge any additional fees required under 37 CFR § 1.16 or 1.17 or credit any overpayment to Deposit Account No. 09-0441. A duplicate copy of this authorization is attached for the Finance Branch.

Respectfully submitted,

C. Lutz

By 
Daniel E. Johnson (#37,033)
Agent for Applicants
Phone (408) 927-3367

DEJ:cgr

Attachments

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Substitute for form 1449A/PTO			Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Application Number	Unassigned	
			Filing Date	October 17, 2003	
			First Named Inventor	C. Lutz	
			Art Unit	2811 (prior case)	
			Examiner Name	C. Nguyen (prior case)	
Sheet	1	of	3	Attorney Docket Number	ARC920020035US2

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US- 4,987,312	01-22-1991	Eigler	
		US- 5,144,148	09-01-1992	Eigler	
		US- 5,166,919	11-24-1992	Eigler	
		US- 5,323,376	06-21-1994	Eigler	
		US- 6,339,227	01-15-2002	Ellenbogen	
		US- 6,348,700	02-19-2002	Ellenbogen et al.	
		US- 6,621,100	09-16-2003	E;pstein et al.	
		US- 6,472,248	10-29-2002	Shiozaki et al.	
		US- 6,307,147	10-23-2001	Bird et al.	
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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	Unassigned
		Filing Date	October 17, 2003
		First Named Inventor	C. Lutz
		Group Art Unit	2811 (prior case)
		Examiner Name	C. Nguyen (prior case)
		Attorney Docket Number	ARC920020035US2
Sheet	2	of	3

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		R. P. Cowburn et al., "Room Temperature Magnetic Quantum Cellular Automata", Science, Vol. 287, February 25, 2000, pp. 1466-1468.	
		I. Amlani et al., "Digital Logic Gate Using Quantum-Dot Cellular Automata", Science, Vol. 284, April 9, 1999, pp. 289-291.	
		C. P. Collier et al., "Electronically Configurable Molecular-Based Logic Gates", Science, Vol. 285, July 16, 1999, pp. 391-394.	
		D. M. Eigler et al., "Positioning single atoms with a scanning tunnelling microscope", Nature, Vol. 344, April 5, 1990, pp. 524-526.	
		L. Bartels et al., "The evolution of CO adsorption on Cu(111) as studied with bare and CO-functionalized scanning tunneling tips", Elsevier Science B. V., Vol. 432, 1999, pp. 621-626.	
		R. Landauer, "Advanced Technology and Truth in Advertising", Elsevier Science B. V. (North Holland), Physica A, Vol. 168, 1990, pp. 75-87.	
		J. Timler et al., "Power gain and dissipation in quantum-dot cellular automata", Journal of Applied Physics, Vol. 91, No. 2, January 15, 2002, pp. 823-831.	
		Y. Okawa et al., "Linear chain polymerization initiated by a scanning tunneling microscope tip at designated positions", Journal of Chemical Physics, Vol. 115, No. 5, August 1, 2001, pp. 2317-2322.	
		D. M. Eigler et al., "An atomic switch realized with the scanning tunnelling microscope", Nature, Vol. 352, August 15, 1991, pp. 600-603.	
		K. E. Drexler, "Nanosystems Molecular Machinery, Manufacturing, and Computation", A Wiley-Interscience publication, 1992, pp. 342-371.	
		Saraf et al., "Self assembled nano-devices using DNA", United States Patent Application Publication number US 2002/0098500 A1, July 25, 2002, Appl. No. 09/972,958.	

Examiner Signature	Date Considered
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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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				Examiner Name	C.Nguyen (prior case)
				Attorney Docket Number	ARC920020035US2
Sheet	3	of	3		

[illegible]

Examiner Signature		Date Considered	
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